irradiating said semiconductor film with at least two pairs of linear infrared lights while moving said substrate in a direction perpendicular to the linear infrared lights,

wherein a first auxiliary linear infrared light and one of main linear infrared lights is located over said substrate and a second auxiliary linear infrared light and the other one of said main linear infrared lights is located at a backside of said substrate, and

wherein said semiconductor film is irradiated with said first and second auxiliary lights prior to said main linear infrared lights.

8. (Amended) A method for manufacturing semiconductor device comprising the steps of:

forming a semiconductor film over a substrate; and

irradiating said semiconductor film by scanning with at least two pairs of linear infrared lights in a predetermined direction so as to form and move a temperature gradient in the semiconductor film,

wherein an upper auxiliary linear infrared light and an upper main linear infrared light are located over said semiconductor film and a lower auxiliary linear infrared light

14. (Amended) A method for manufacturing a semiconductor device comprising steps of:

forming a semiconductor film over a substrate; and

irradiating said semiconductor film with at least two pairs of linear infrared lights while moving said substrate in a direction perpendicular to the linear infrared lights,

wherein a first auxiliary linear infrared light and one of main linear infrared lights is located over said substrate and a second auxiliary linear infrared light and the other one of said main linear infrared lights is located at a backside of said substrate, and

wherein said semiconductor film is irradiated with said first and second auxiliary lights prior to said main linear infrared lights.

20. (Amended) A method for manufacturing semiconductor device comprising the steps of:

forming an amorphous semiconductor film over a substrate; and

crystallizing the semiconductor film by scanning with at least two pairs of upper and lower linear infrared lights in a predetermined direction,

wherein said upper linear infrared lights are located over said substrate and said lower linear infrared lights are located at a backside of said substrate, and

wherein said predetermined direction is coincident with a direction of crystal growth in the semiconductor film.

22. (Amended) A method according to claim 20, wherein at least one of pairs of said linear infrared lights is auxiliary lights.

29. (Amended) A method for manufacturing semiconductor device comprising the steps of:

forming an amorphous semiconductor film over a substrate; and

crystallizing the semiconductor film by scanning the semiconductor film with at least one pair of upper and lower linear infrared lights in a direction in order to form and move a temperature gradient the semiconductor film,

wherein said upper linear infrared light is located over said semiconductor film and said lower linear infrared light is located at an underside of said semiconductor film, and

wherein a scanning direction is coincident with a direction of crystal growth to be proceeded in the semiconductor film.

36. (Amended) A method for manufacturing a semiconductor device comprising steps of:

forming an amorphous semiconductor film over a substrate; and

crystallizing said semiconductor film by irradiating said semiconductor film with at least one pair of linear infrared lights while moving said substrate in a perpendicular to the linear infrared lights,

wherein one of said linear infrared lights is located over said substrate and the other one of said linear infrared lights is located at a backside of said substrate, and

wherein an irradiating direction is coincident with a direction of crystal growth to be proceeded in the semiconductor film.

41. (Amended) A method for manufacturing a semiconductor device comprising steps of:

forming an amorphous semiconductor film over a substrate; and

crystallizing said semiconductor film by scanning with a plurality pairs of linear infrared lights in a direction perpendicular to a longitudinal direction of the linear infrared

of an upper linear infrared light and a lower linear infrared light,

wherein each upper linear infrared light is located over said substrate and each lower linear infrared light is located at a backside of said substrate, and

wherein a scanning direction is coincident with a direction of crystal growth to be proceeded in the semiconductor film.

Please add claims 46-48.

--46. (New) A method according to claim 29, wherein at least two pairs of upper and lower linear infrared lights are irradiated to the semiconductor film.

47. (New) A method according to claim 36, wherein at least two pairs of upper and lower linear infrared lights are irradiated to the semiconductor film.

48. (New) A method according to claim 41, wherein at least one of pairs of said linear infrared lights is auxiliary lights.--